WHAT IS CLAIMED IS:

1. A method for restoration of male fertility to cytoplasmic male sterile plants; which comprises the steps of:

a) introducing into the nucleus of a plant cell a gene construct essentially consisting of a sequence encoding a mitochondrial transit peptide fused upstream of and in frame with an edited form of a normal mitochondrial gene that is co-transcribed with an unusual CMS-associated mitochondrial gene;

b) selecting for plant cells that have acquired the gene construct in step a); and

c) inducing regeneration of selected plant cells to produce a mature plant.

2. The method of claim 4, wherein the plant is *Brassica napus*.

3. The method of claim 4, wherein step b) is effected using a plant transformation vector.

4. A method for restoration of male fertility to polima cytoplasmic male sterile *B. napus*; which comprises the steps of:

a) introducing into the nucleus of a *B. napus* plant cell a gene construct essentially consisting of a sequence encoding a mitochondrial transit peptide fused upstream of and in frame with, an edited form of an atp6 gene of *B. napus* mitochondria;

b) selecting for plant cells that have acquired the gene construct in step a); and

c) inducing regeneration of selected plant cells to produce a mature plant.